



**UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/857.756	05/15/97	VAN DE WITTE	P PHN15.815

CORPORATE PATENT COUNSEL
U S PHILIPS CORPORATION
580 WHITE PLAINS ROAD
TARRYTOWN NY 10591

MM92/0523

EXAMINER

MERLINO, A

ART UNIT

PAPER NUMBER

2877

DATE MAILED: 05/23/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/857,756

Applicant(s)
De Witte et al

Examiner
Amanda Merlino

Group Art Unit
2877



☒ Responsive to communication(s) filed on Mar 3, 2000

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-15 is/are pending in the application.

Of the above, claim(s) 15 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-14 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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The latest response filed 3/3/00 has been entered. If any previous rejection(s) or objection(s) is(/are) not repeated below it has been withdrawn by the examiner.

Claim Objections

1. Claims 1 and 15 objected to because of the following informalities:
 - a. In claim 1, line 5, "the liquid-crystal molecules" lack antecedent basis;
 - b. In claim 9, line 3, "the liquid-crystal molecules";
 - c. In claim 9, line 5 "compensation layer" should read "compensator layer".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-14 rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al (5,583,679).

Ito et al teach of a liquid crystal display having a compensator layer in accordance with figure 5 comprising a liquid crystal cell comprising a pair of substrates provided with a nematic, liquid crystal material, with the cell further provided with polarizers (A, B) wherein the compensator layer comprises at least two retardation foils (RF1, RF2) which contain polymerized

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liquid-crystalline material, exhibiting a tilt angle, making an angle with each other which falls in the range of 0-90 degrees.

Ito et al lacks the teaching of the range of angles being 60-180 degrees.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the angles between 60-180 degrees, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Furthermore note that Ito et al discloses the range of angles to be 0-90 degrees which overlaps the range of 60-180 degrees as claimed in the present invention, and thus it would have been obvious to choose the optimal ranges. See *In re Malagari*, 499F.2d 197, 182 USPQ 549 (CCPA 1974).

Response to Arguments

4. Applicant's arguments filed 3/3/00 have been fully considered but they are not persuasive.

Applicant argues that the "Ito et al. patent does not suggest that the liquid crystal molecules present in the liquid crystalline material of the compensator layer exhibits a tilt angle relative to the substrates of the display device"; however, examiner respectfully disagrees. As stated in the rejection above, Ito et al specifically teaches of an inclined angle (tilt angle) as shown in figure 5 and throughout the specification. Applicant further argues that "the teachings of the average directions of orientation of the liquid-crystal molecules in one compensator layer making an angle of either 0-90 degrees or 90-180 degrees with the average direction of orientation of the liquid-crystal molecules in a second compensator layer of the device, as taught

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by Ito et al, is even suggestive of the claimed range of 60-120 degrees. Examiner again respectfully disagrees for the reasons stated in the above rejection that it held that discovering the optimum or workable ranges involve only routine skill in the art unless it can be shown that it the claimed range results in "unexpected results". reference.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Papers related to the application may be submitted to Group 2800 by Fax transmission. Papers should be faxed to Group 2800 via the PTO Fax Machine located in Crystal Plaza 4. The form of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CP4 Fax Machine number is:

703-308-7722

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If the applicant wishes to send a Fax dealing with a Proposed Amendment for discussion for a phone interview then the fax should:

1) Contain either the statement "DRAFT" or "PROPOSED AMENDMENT" on the Fax Cover Sheet; and

2) Should be unsigned by the attorney or agent.

This will ensure that it will not be entered into the case and will be forwarded to the examiner as quickly as possible.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Examiner Amanda H. Merlino* whose telephone number is (703) 305-3488.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-0956.

Amanda H. Merlino

Patent Examiner

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May 9, 2000/ahm



FRANK G. FONT
SUPERVISORY PATENT EXAMINER